

Rejection Under 35 U.S.C. §102(b)

Claims 1 – 29, 31-33, and 35-38 were rejected under 35 U.S.C. §102(b) as being anticipated by *Kuffner, et al.* (U.S. Patent 5,486,863).

To properly establish a *prima facie* case of anticipation, *all* of the claimed elements **must be found** in the applied prior art. It follows, therefore, that if a *single* claimed element is not found in the prior art, a *prima facie* case of anticipation cannot properly be established.

For the reasons set forth herein, it is respectfully asserted that the reference to *Kuffner, et al.* lacks at least a teaching of one of the claimed elements of independent claims 1, 24, 29 and 33. As such, it is respectfully asserted that a *prima facie* case of anticipation of claims 1, 24, 29, 31 and 33 has not been established. Therefore, for at least the reasons set forth below, claims 1, 24, 29 and 33, *and* the claims that depend therefrom, are believed to be allowable over the applied art.

Independent claim 1 of the present application specifically recites that: “...each of said plurality of antenna configuration states is adapted for use of the antenna device ***in a respective predefined physical operation environment.***”

Independent claim 24 includes language drawn to a method that is consistent with the referenced portion of claim 1.

In the application as filed, examples of the claimed term ‘predefined physical operation environment’ are given, and include a talk position, a free space position, a waist position, and a pocket position. Common to all predefined physical operation environments is that they are in close proximity to the antenna device. Moreover, the plurality of antenna configuration states is distinguished between a set of radiation

parameters. As such, based on the particular predefined physical operation state that exists, a particular antenna configuration state is chosen. If the physical operation state changes, the antenna configuration state is changed. (Please refer to the application as filed at page 5, lines 26-27).

An example of such a change is discussed in the application as filed. In this example, the change of physical operation state is from free space to talk position. To compensate for the change in the resonance frequency caused by the user, switch 49 is opened, and the electrical length of the connected antenna structure is reduced, and the resonance frequency is increased. As such, with an appropriate design of an antenna structure and switching device 36, the increase in the resonance frequency compensates for the reduction as introduced by the change in physical operation state from free space to talk position. (Please refer to page 14, line 27-page 15, line 7 of the application as filed.)

The reference to *Kuffner, et al.* neither teaches nor suggests such a limitation. To this end, the reference to *Kuffner, et al.* is drawn to a dual rectangular patch antenna system and radio for providing isolation and diversity, while eliminating the need for a diplexer or a second transmit/receive switch. To this end, the reference to *Kuffner, et al.* introduces impedance isolation, and fosters spatial and polarization diversity by switching between two patch antennas.

As is known, spatial diversity pertains to the mitigation of one type of multi-path interference (MPI). For purposes of illustration, MPI can result in reduced signal strength due to destructive interference signals due to reflection, and unequal path length from a transmitter in general.

Polarization diversity is a technique whereby information may be sent over two states of polarization of a signal. It is useful to mitigate changes in a desired polarization state as the signal is transmitted/received across a link. For example, interference as detailed above in connection with spatial diversity section can adversely impact the polarization state of a signal. Of course, this phenomenon relates to a difference in the electrical path length of the signal, and other factors could result in the loss polarization diversity.

As such, the reference to *Kuffner, et al* is drawn to mitigating the adverse affects of interference with the signal, **and not to adapting the antenna structure to accommodate a change in the physical environment (physical operation state).**

Accordingly, for at least the reasons set forth above, the reference to *Kuffner, et al.* fails to disclose at least the claimed element of claims 1 and 24 discussed above. Therefore, *Kuffner, et al.* cannot serve to establish a prima facie case of anticipation of these claims as has been asserted in the Office Action. For at least this reason, withdrawal of the rejection of claims 1 and 24, and the claims that depend directly or indirectly therefrom is respectfully requested.

Claim 29 includes common elements with claims 1 and 24 discussed above, and it is respectfully submitted that the germane arguments set forth above are pertinent to claim 29 as well. Moreover, claim 29 also recites:

“...wherein a measure of the detected physical property is received from at least one of a sensor, particularly a resistive sensor, capacitive, inductive, optic, temperature, pressure, inclination, orientation, or motion sensor.”

In keeping with the discussion of claims 1 and 24 above, the at least one sensor is used for sensing in a close-proximity environment. (Please refer to page 17, line 4-page 18 line 16 for further details of the use of sensors in accordance with the invention of the presently discussed claim).

It is respectfully submitted that the reference to *Kuffner, et al.* does not teach nor suggest the recited elements of claim 29. To this end, the reference to *Kuffner, et al.* does disclose the selection of one of the patch antennas based on signal strength. However, the reference does not disclose any sensors by which this is measured, and therefore lacks at least a teaching of the sensors recited above.

Accordingly, for at least the reasons set forth above, the reference to *Kuffner, et al.* fails to disclose at least the claimed element of claim 29 discussed above. Therefore, *Kuffner, et al.* cannot serve to establish a prima facie case of anticipation of this claim as has been asserted in the Office Action. For at least this reason, withdrawal of the rejection of claim 29, and the claims that depend directly or indirectly therefrom is respectfully requested. In addition, claim 33 includes a similar limitation to that of claim 29 recited above. For reasons substantially identical to those discussed above, the rejection of claim 33 in view of *Kuffner, et al.* is believed to be improper, and should therefore be withdrawn.

Finally, claim 31 has been rejected under 35 U.S.C. §102(b) as being anticipated by *Kuffner, et al.* Claim 31 specifically includes a control device that receives a measure of a detected physical property of operation, and a measure of a second detected physical property. The use of the measure of ~~two~~ detected physical properties fosters safer identification of the operation environment, allowing more reliable control of the

switching device. For example, in the application as filed, the physical property may be a change in the reactance of a capacitive or inductive sensor when objects with different electrical properties than those of free space are close to the sensors. (Please refer to page 17 of the application as filed for further details.)

It is respectfully asserted that the reference to *Kuffner, et al.* fails to teach or suggest this claimed limitation. To wit, the reference does not disclose a measure of two detected physical properties as claimed. As such, the reference to *Kuffner, et al.* lacks a teaching of at least one of the claimed elements of claim 31, and cannot serve to establish a prima facie case of anticipation as asserted in the Office Action. For at least this reason, withdrawal of the rejection of independent claim 31, and claim 32, which depends therefrom is respectfully requested.

Conclusion

In view of the forgoing amendments and remarks, reconsideration and withdraw of all objections and rejections are respectfully requested. An early notice of allowance is earnestly solicited.


Except as otherwise stated in the previous Remarks, applicants note that each of the amendments have been made to place the claims in better form for U.S. practice or to clarify the meaning of the claims; not to distinguish the claims from prior art references, otherwise narrow the scope or comply with other statutory requirements.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact William S. Francos, Esq. (Reg. No. 38,456) at (610) 375-3513 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

Respectfully submitted on behalf of:

ALLGON AB

A handwritten signature in black ink, appearing to read 'William S. Francos', written over the printed name.

William S. Francos, Esq.

Reg. No. 38,456

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